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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/524,188 | 02/10/2005 | Junbiao Zhang | PU020380 | 1328 |

24498 7590 03/17/2006

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PATENT OPERATIONS
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| EXAMINER |
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NGUYEN, HUY D

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| ART UNIT | PAPER NUMBER |
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2681

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/524,188 | Applicant(s) ZHANG, JUNBIAO | |
| | Examiner Huy D. Nguyen | Art Unit 2681 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,7,8,14 and 15 is/are rejected.
- 7) ☒ Claim(s) 2-6 and 9-13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Both claims 3 and 4 were numbered 3. Misnumbered claims 3-14 have been renumbered 4-15.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 8, 15 are rejected under 35 U.S.C. 102(e) as being anticipated by McCann et al. (US 2002/0037708 A1).

Regarding claims 1, 8, 15, McCann et al. teaches a method for managing a session key used for enabling communications between a mobile terminal and an access point in a wireless local area network ("WLAN") comprising the steps of:

receiving a request for access to the WLAN from the mobile terminal (e.g., handset 10, figure 1, see paragraph [0015]); determining a virtual operator (e.g., HAAA) associated with the access request (see paragraph [0016]); establishing a first secure channel between the access point and the virtual operator (see paragraph [0017]); requesting user authentication from the

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virtual operator via the first secure channel, wherein the virtual operator communicates with the mobile terminal via a second secure channel to authenticate the mobile terminal (see paragraph [0019]); selecting a session key (e.g., masking string) and sending the session key to the virtual operator via the first secure channel (see paragraph [0017]), wherein the virtual operator sends the session key to the mobile terminal via the second secure channel (see paragraph [0019]); and communicating with the mobile terminal using the session key (see paragraph [0019]).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCann et al. (US 2002/0037708 A1).

Regarding claims 7 and 14, McCann et al. teaches the claimed invention except that the virtual operator includes one of an Internet Service Provider, a cellular provider and a credit card provider. However, it would have been an obvious matter of design choice to have the virtual operator include one of an Internet Service Provider, a cellular provider and a credit card provider since it appears the invention would perform equally well with the virtual operator being one of an Internet Service Provider, a cellular provider and a credit card provider.

Allowable Subject Matter

6. Claims 2-6, 9-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 2 and 9, the cited prior art fails to teach that the step of requesting user authentication is performed in parallel with the step of selecting and sending the session key.

Claims 3-5 depend on claim 2. Therefore, they are objected to with the same reason set forth in claim 2.

Claims 10-12 depend on claim 9. Therefore, they are objected to with the same reason set forth in claim 9.

Regarding claims 6 and 13, the cited prior art fails to teach that the step of selecting a session key and sending the session key to the virtual operator via the first secure channel is performed only after receiving notification of successful user authentication from the virtual operator.

Contact Information

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy D. Nguyen whose telephone number is 571-272-7845. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HN

Huy Nguyen


ERIKA A. GABY
PRIMARY EXAMINER